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P24-116.1F15

Fall 2015

**Recycling Paper In the Classroom Lesson Plan**

**Essential Question:** How can I reduce paper waste and conserve trees through recycling?

**Description:** Children will begin exploring paper waste by exploring the paper products that are around them. The Day 1 Lesson Plan is designed to bring children’s awareness to everyday paper items, how they use paper, the variety of paper, and the basic properties of paper. The children will explore paper through three hands-on centers and will share to the class the discoveries that they made about paper. This lesson plan will highlight the importance of paper in their lives and prepare them for the Day 2 Lesson Plan in which they will learn that paper comes from a natural resource that they can help to conserve. On the Day 2, they will listen to an informational text about conserving trees and discuss why the natural resource should be preserved. The children will then use information from the text to make a list of ways to conserve trees, which will include using less paper and recycling paper. The class will participate in making recycled paper from paper waste in the classroom. The two lessons can be extended by having students collect and sort paper waste from the school and their home to recycle in the classroom, investigate the recycled paper they made and compare it to virgin paper, create posters about paper waste and recycling to inform the school community, and look for recycled paper products at the store.

**Grade Level:** Prekindergarten

**Focus Standards From The Prekindergarten Foundation for the Common Core:**

Domain 1 Approaches to Learning:

PK.AL.4: Exhibits curiosity, interest, and willingness in learning new things and having new experiences.

Domain 4: Communication, Language, and Literacy:

*Background Knowledge*

PK.CLL.2: Demonstrates he/she is building background knowledge.

*Viewing*

PK. CLL.3: Demonstrates that he/she understand what they observe.

*Speaking and Listening Standards*

PK.CLL.1: With guidance and support, confirm understanding of a text read aloud or information presented orally or through other media by asking and answering questions about key details and requesting clarification if something is not understood.

Domain 5: Cognition and Knowledge of the World

PK.CkW.4: Observes and describes characteristics of earth and space.

e) Expresses ways the environment provides natural resources that are needed by people

f) Demonstrates ways that each person is responsible for protecting our planet

**Teacher Competency**

Component 3c: Engaging Students in Learning

**Time:** 60 minutes a day for 2 days (includes 15 minute whole group lesson and 30 minutes of individual/group work, and 15 minute group share).

**Day 1**

**Objectives**:

Students will:

* Identify paper products.
* Gather information by using their senses to observe the physical properties of paper and share information gathered to the class.
* Brainstorm the ways they use paper.

**Vocabulary:** paper

**Materials**: cardboard, magazine paper, newsprint, copy paper, construction paper, tissue

**Mini Lesson**:

1. Send students to bring back to the meeting area something in the classroom made out of paper.

2. Have students quickly share what they brought back to the carpet and how they are used.

3. Have students brainstorm additional paper products that they have used and how they use paper. Record children’s responses on chart paper.

4. Ask students to share what similarities and differences they notice about the paper products and record their observations (*texture, appearance, shape)*.

4. Invite students to learn more about paper by introducing the paper investigation centers:

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| --- | --- | --- | --- |
|  | Center 1 | Center 2 | Center 3 |
| Procedure/Task | Students will sort pieces of paper by type.  Questions to ask students: How does (type of paper) look and feel like? | Students will observe paper fibers with magnifying lens and microscope.  Questions to ask students: What do you see when you look at the paper through the magnifying glass/microscope? How do the different papers look similar and different? | Students will use paper scraps to make a collage and will be encouraged to transform the paper scraps with their hands by tearing, folding, and crumpling.  Questions to ask students: How can you change the paper with your hands? |
| Set-Up | bin #1 (labeled "cardboard"), bin #2 (labeled "magazine paper"), bin #3 (labeled "newsprint"), bin #4 (labeled "copy paper"), bin #5 ("construction paper"), and a bin with a mix of each paper type to sort. | various types of paper (non-recycled and recycled), magnifying lens, and microscopes. | trays of paper scraps, glue, 9x12 sheets of black construction paper |

**Individual/Group Practice**:

Students rotate among the centers.

**Whole Group Share:**

Have students share what they noticed about the paper that they worked with, what they saw using the magnifying lens/microscopes, and how they manipulated paper to make their collage.

**Day 2**

**Objectives**:

Students will:

* Listen to an informative text about where paper comes from.
* Understand how they can reduce paper waste by recycling.
* Work in groups to follow steps to make recycled paper.
* Learn and apply the vocabulary words: recycle, conserve, pulp, pulp slurry.

**Vocabulary**: recycle, conserve, pulp, pulp slurry

**Materials**: *Be a Friend to Trees* by Patricia Lauber, chart paper, markers, "How To Make Recycled Paper" poster, 2 mould and deckles, 2 plastic dishpans, 2 blenders, large sheet of white felt, scraps of white and colored paper, sponges

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| --- |
| **HOW TO MAKE RECYCLED PAPER**   1. **Rip paper into small pieces.** 2. **Put the paper in a blender with enough water to cover the paper. Blend the paper and water into a fine pulp.** 3. **Add the pulp to a dishpan of clean water.** 4. **Dip the block and deckle into the dishpan and lift to coat the block and deckle with a thin layer of pulp.** 5. **Allow the water to drain through the block and deckle for a few minutes.** 6. **Carefully press out the remaining water with a sponge.** 7. **Press a sheet of felt over the pulp and flip the block and deckle over onto a flat surface. Tap the back of the screen to loosen the pulp from the frame.** 8. **Place the pulp with the felt in a sunny spot to dry.**   ***\*add pictures to each step to illustrate the directions*** |

**Mini Lesson**:

1. Show children the unused paper scraps from the day before and any other collected paper waste from the classroom. Tell students that it will all be thrown away in the trashcan. Ask students if that is okay. Why or why not?

2. Tell children that they will listen to a book that will teach them about what happens when people use and throw away a lot of paper. Read the book *Be a Friend to Trees* by Patricia Lauber.

3. Return to the part of the book in which it discusses why trees must be protected. Have children discuss ways that they can help conserve trees. *Use fewer things made from trees, don't throw away a lot of paper, etc.*

5. Tell children that they will work together to turn the paper waste into paper that can be used again. Introduce the word "recycle" and reiterate how recycling paper can help conserve trees.

**Individual/Group Practice**:

Split children into two groups; each group will be supervised by a teacher or adult volunteer to engage the group in recycling paper by hand. Each group will:

* Read the poster with the children.
* Follow each step on the poster. Encourage students to use the pictures to inform what the step is directing them to do. Ask volunteers to provide hands-on assistance when appropriate (ripping paper, adding water to the blender, scooping up the pulp with the mould and deckle, etc.)
* Introduce the vocabulary word “pulp” by labeling the state of the pieces of paper after it is mixed in the blender. Ask children how the paper pulp looks the same and different from the pieces of torn paper and water mixture before it is blended.

**Group Share:**

Tell students that they just helped "conserve" trees. Ask students why making new paper out of paper waste helps to conserve trees. Have children share other ways that they can help reduce paper waste and conserve trees. Ask them to share about recycling that they do at home.

**Rubric**

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| **3 - Proficient** | **2 - In-process** | **1 - Not Yet** |
| * Actively participates in center activities with purpose and shares information that is gathered. * Is able to explain why reducing paper waste will conserve trees and provides additional ways to conserve trees. * Is able to participate in the papermaking process by referring to the rebus poster to follow specific steps. * Able to apply at least two of the vocabulary words. | * Actively participates in center activities but does not share relevant information that was gathered. * Can explain why reducing paper waste is helpful to the environment, but does not make connections to trees. * Is able to participate in the papermaking process with assistance. * Able to apply one vocabulary word. | * Does not engage in hands-on activities with understanding. * Does not connect how wasting paper harms the environment. Does not actively participate in the papermaking process. * Does not use any of the vocabulary words. |